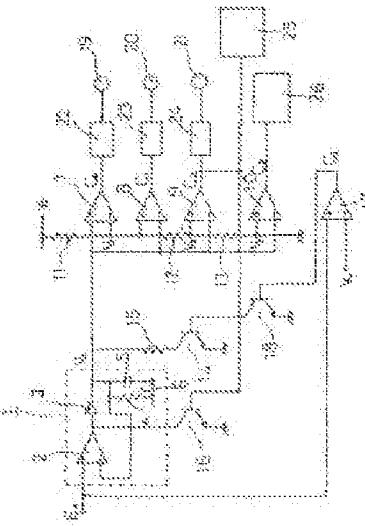


**POWER SOURCE VOLTAGE DETECTING CIRCUIT**

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**Inventor(s):** MIZUMOTO MASAO +  
**Applicant(s):** SANYO ELECTRIC CO; TOKYO SANYO ELECTRIC CO +  
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- **international:** G01R19/165; G01R31/36; G05F1/56; H02H7/18; H02H7/20; G01R19/165;  
G01R31/36; G05F1/10; H02H7/18; H02H7/20; (IPC1-7): G01R31/36; G05F1/56;  
H02H7/18; H02H7/20  
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Abstract of **JP 59022113 (A)**

**PURPOSE:** To reduce external capacitors and pins in number by using one capacitor as a smoothing and holding and a delay capacitor in an equipment, such as a portable VTR, in which batteries are used as its power source. **CONSTITUTION:** When the output voltage  $V_0$  of the portable VTR, etc., using batteries as its power source drops belows a reference voltage  $V_1$  as the source voltage  $E_0$  of the batteries drops, a display element 20 turns on to indicate battery replacement, but if video recording is still carried on continuously, the output voltage  $V_0$  further drops below a reference voltage  $V_2$ , placing the VTR in stop mode. Then, switching transistors 14 and 16 turn on, so input to a charging and discharging circuit 6 is intercepted to discharge the capacitor 5 to below an output voltage  $V_3$  a specific time later, cutting off the source voltage.



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